

71 HW

p350

16-21, 30, 34, 39-44

[16]

D: 1

L.C: -1

[17]

$(a+1)(a^2-4)$

$a^3 - 4a + a^2 - 4$

D: 3

L.C: 1

[18]

No it has 2 variables  $a+b$

[19]

D: 4

L.C: 6

[20]

D: 3

L.C: -5

[21]

Not a poly  $\rightarrow -\frac{1}{x}$

[30]

$r(3a) = x^3 + x + 1$

$(3a)^3 + 3a + 1$

$27a^3 + 3a + 1$

34.

$r(x+1) = (x+1)^3 + (x+1) + 1$

$(x+1)^2(x+1) + (x+1) + 1$

$(x^2 + 2x + 1)(x+1)$

$x^3 + 2x^2 + x + x^2 + 2x + 1 + x + 2$

$= x^3 + 3x^2 + 4x + 3$

39.

(a) As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow +\infty$

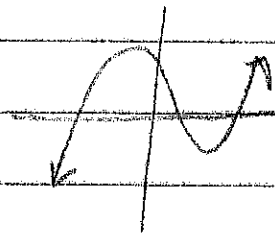
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$

(b)

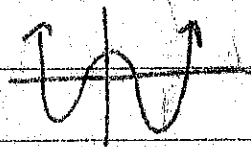
odd

(c)

3

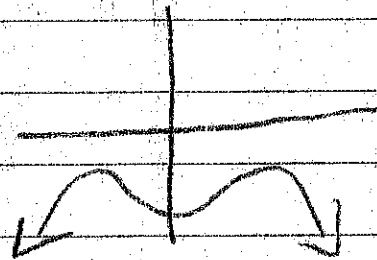


40. (a) As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow +\infty$   
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow +\infty$



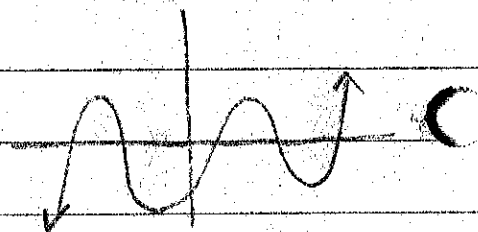
- (b) Even  
(c) 4

41. (a) As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow -\infty$   
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$



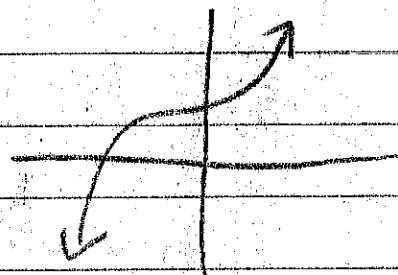
- (b) Even  
(c) 0

42. (a) As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow +\infty$   
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$



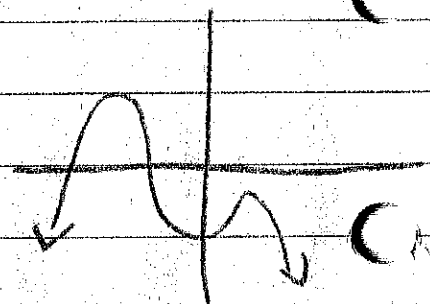
- (b) Odd  
(c) 5

43. (a) As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow +\infty$   
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$



- (b) Odd  
(c) 1

44. (a) As  $x \rightarrow +\infty$ ,  $f(x) \rightarrow -\infty$   
As  $x \rightarrow -\infty$ ,  $f(x) \rightarrow -\infty$



- (b) Even  
(c) 2